

Pajaro River Watershed IRWM Implementation Proposal Program Preferences

The Pajaro River Watershed IRWM Implementation Proposal was developed with the Program Preferences in mind. The eight Program Preferences are listed below in Table 9-1 and were given special attention by Pajaro River Watershed stakeholders when:

- Developing the IRWM goals and objectives to consider Program Preferences and Statewide Priorities,
- Creating the IRWM project review process to prioritize projects that address multiple IRWM goals and objectives, Program Preferences, and Statewide Priorities, and
- Addressing and funding the critical water supply needs of DACs within the Pajaro River Watershed.

With a high degree of certainty, the multi-beneficial projects and strategies of the Pajaro River Watershed IRWM Implementation Proposal will achieve the results desired by the Program Preferences. The discussion below describes the four projects that make up the Proposal, demonstrates how the Proposal assists in meeting the Program Preferences, documents the certainty that the Proposal will meet the Program Preferences, and describes the breadth and magnitude to which the Program Preferences will be met.

Table 9-1. Program Preferences

Program Preferences	
1)	Include regional projects or programs (CWC §10544).
2)	Effectively integrate water management programs and projects within a hydrologic region identified in the California Water Plan; the Regional Water Quality Control Board (RWQCB) region or subdivision; or other region or sub-region specifically identified by DWR.
3)	Effectively resolve significant water-related conflicts within or between regions.
4)	Contribute to attainment of one or more of the objectives of the CALFED Bay-Delta Program (http://calwater.ca.gov/calfed/objectives/index.html)
5)	Address critical water supply or water quality needs of disadvantaged communities within the region
6)	Effectively integrate water management with land use planning
7)	For eligible SWFM funding, projects which: a) are not receiving State funding for flood control or flood prevention projects pursuant to PRC §5096.824 or §75034 or b) provide multiple benefits, including, but not limited to, water quality improvements, ecosystem benefits, reduction of instream erosion and sedimentation, and groundwater recharge
8)	Address Statewide priorities (Table 1 of the guidelines establishes the specific Statewide Priorities for the IRWM Grant Program.)

1. Include regional projects or programs

From its inception, the Pajaro River Watershed IRWM planning effort and associated stakeholders have focused on developing multi-beneficial management strategies to address the many needs and water resources interests in the basin. Ultimately, the effort led to the creation of the Pajaro River Watershed IRWM Plan. Borne out of the planning process was the Pajaro River Watershed IRWM project review process that prioritizes projects based on their ability to deliver multiple benefits, across a broad region, and through inter-agency cooperation. All four of the projects included in this proposal deliver broad benefits through inter-agency cooperation, however, the Hollister Urban Area Water Project (HUA Water Project) best demonstrate the benefits of regional project or program implementation.

The HUA Water Project was developed in partnership by the City of Hollister (COH), San Benito County (SBC), San Benito County Water District (SBCWD), and Sunnyslope County Water District (SSCWD) to address water supply, water quality, and wastewater discharge requirements through an integrated and comprehensive approach across agency boundaries and throughout the Hollister Urban Area (HUA). A Memorandum of Understanding (MOU) was executed in 2004 by the COH, SBC, SBCWD, and later amended to include SSCWD. The MOU established the goals and institutional framework for regional water and wastewater master planning.

The MOU described the principles, objectives, and assumptions that ultimately formed the institutional framework and basis of the 2008 HUA Water and Wastewater Master Plan. The Master Plan, focused on the following goals to meet the HUA needs:

- Improve municipal, industrial, and recycled water quality
- Increase the reliability of the water supply
- Coordinate infrastructure improvements for water and wastewater systems
- Implement goals of the Groundwater Management Plan
- Integrate recommendations of the Long-term Wastewater Management Plans (LTWMP) with the Master Plan
- Support economic growth and development consistent with the City of Hollister and San Benito County General Plans and Policies
- Consider regional issues and solutions

The project and delivery of benefits will be delivered across agency boundaries on a regional scale, demonstrating the significant breadth and magnitude to which the program preference will be met.

To ensure the certainty of the benefits of the regional program, two new institutional agreements are being prepared, the Water Supply and Treatment Agreement (WS&T Agreement) and the Water Treatment Operations and Maintenance Agreement (O&M Agreement).

The WS&T Agreement is an agreement between the SBCWD, COH and SSCWD which defines the terms and conditions under which the SBCWD will provide wholesale treated surface water to COH and SSCWD for municipal and industrial use in the HUA. Under this agreement, the COH and SSCWD will continue to own and use their existing municipal groundwater wells in conjunction with the treated surface water provided by SBCWD. The COH and SSCWD distribution systems have multiple interconnections and serve three pressure zones (Low, Middle, Ridgemark/High). The WS&T Agreement defines the zone of use and allocations of the treated water from each treatment plant in order to balance and maximize the water quality benefits across the two distribution systems and to ensure that sufficient surface water is provided to the Ridgemark/high zone to enable the Ridgemark Wastewater Treatment Plant (WTP) to meet its Waste Discharge Requirements. The WS&T Agreement also defines the sources of supply, financing terms, and ownership and operation of facilities. Finally, the WS&T Agreement defines the transfer of ownership of the existing Lessalt WTP from the COH and SSCWD to the SBCWD, which will be the wholesale agency.

The O&M Agreement is an agreement between SBCWD and SSCWD. Although SBCWD will own both surface water treatment plants (Lessalt and West Hills), the intention of this agreement is for SSCWD to continue to operate the Lessalt Water Treatment Plant and later the West Hills Water Treatment Plant after construction.

2. *Effectively integrate water management programs and projects within a hydrologic region identified in the California Water Plan; the Regional Water Quality Control Board (RWQCB) region or subdivision; or other region or sub-region specifically identified by DWR*

The Pajaro River Watershed IRWM planning region and the four projects in this proposal are located in the Central Coast hydrologic region identified in the California Water Plan and the Central Coast Region of the Water Quality Control Board. Certainty of meeting this Program Preference is high since the integration of all the strategies in the Proposal was thoroughly developed and established through the Pajaro River Watershed IRWM Plan. The IRWM planning process integrates the projects through identification of common goal and objectives. As a result, the projects are linked both in function, goals, and location. All four of the projects included in this proposal deliver integrate water management program elements within the Pajaro River Watershed, however, the Pajaro Agricultural Water Quality and Aquifer Enhancement Project (Pajaro Agricultural Project) best demonstrate the integration of water management programs and projects within a hydrologic region.

Relevance of Pajaro River Watershed IRWM region

The Pajaro River Watershed IRWM planning region and all four project in this proposal are located in the Central Coast hydrologic region identified in the California Water Plan and the Central Coast Region of the Water Quality Control Board. The Pajaro River Watershed IRWM regional boundary is the Pajaro River Watershed boundary, as illustrated in 9.1. The Watershed is an appropriate area for integrated regional water management because of the mutual needs and shared resources that link the region.

Integrating Water Management Programs

In 2012, through the Pajaro River Watershed IRWM Plan Update project solicitation and review process, the Resource Conservation District of Santa Cruz County (RCDSCC) submitted a project application for the Integrated Aquifer Enhancement Project for the Pajaro Valley. That project proposed implementation of aquifer enhancement projects through:

- storm water capture and returning of excess surface flows to the aquifer,
- convening stakeholders to implement community-based water supply projects, and
- incentive-based program for demand management.

Increasing groundwater recharge in the Pajaro Basin would help to reduce overdraft, thereby decreasing seawater intrusion occurring along the coast. Projects can also help to reduce nutrient and sediment flows to surface water systems, and improve hydrologic function in support of stream and wetland systems. The project received a high priority scoring based on the multiple IRWM objectives and priorities addressed by the project.

Also submitted in the 2012 Pajaro River Watershed IRWM Plan Update project solicitation and review process, was the Regional Mobile Lab. The Regional Mobile Lab was designed to provide technical services to farmers on a one-on-one basis, providing education and assistance to facilitate implementation of sound management practices and adaptive management by providing tools to protect water quality and improve water use efficiency. The project also received a high priority scoring based on the multiple IRWM objectives and priorities address by the project.

Due to the fact that both projects target the same stakeholders and offer similar approaches the RWMG in coordination with the RCDSCC integrated the projects to create one project, the Pajaro Agricultural Water Quality and Aquifer Enhancement Project which will provide not only the essential objectives of the plans above, but also takes a holistic approach to meeting the needs of both the agricultural community and the Pajaro Watershed.

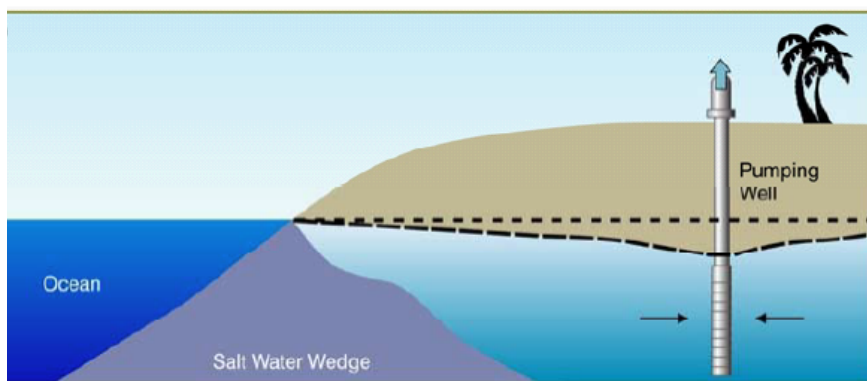
The Pajaro Agricultural Water Quality and Aquifer Enhancement Project will address priority nutrient, sediment, and pesticide sources by supporting the implementation of aquifer recharge projects as well as agricultural water conservation and water quality improvement projects. As a result the Project is anticipated to benefit the beneficial uses of water outlined in the CCRWQCB Basin Plan including municipal, agricultural, and industrial water supply, ground water recharge, support of rare, threatened or endangered species, migration and spawning of aquatic organisms, and preservation of wildlife habitat, biological habitats of special significance, as well as cold/warm freshwater habitat. The Project is consistent with the priorities of the RWQCB Basin Plan. Moreover, the proposed project will directly support TMDL implementation and Ag Order compliance, by reducing the transport of pollutants and restoring water quality improvement functions to agricultural lands.

3. Effectively resolve significant water-related conflicts within or between regions

Developing a safe, reliable water supply is the highest priority water resource issue for the Pajaro River Watershed IRWM region. Groundwater is the primary source of supply in the watershed and the beneficial use of the basin is threatened by overdraft, seawater intrusion, and contamination from salts and other contaminants. This has led to conflict amongst water users over the safe and reliable use of the groundwater. All of the projects included in the Pajaro River Watershed IRWM Implementation Proposal develop a new water supply or help preserve and optimize the use of existing supplies and thus, contribute to the reduction in conflict amongst water users. However, the Pajaro Valley Water Management Agency (PVWMA) Increased Recycled Water Storage Project best demonstrates the effective resolution of significant water-related conflicts within the Pajaro River Water IRWM region.

The water needs of the Pajaro Valley are met almost entirely by groundwater pumping. The estimated water use in the Pajaro Valley is approximately 55,600 AFY, of which 53,000 AFY is obtained from groundwater pumping. Urban water users pump approximately 9,000 AFY and agricultural water users pump approximately 44,000 AFY. The Pajaro Valley Model simulation estimates that approximately 12,000 AFY of conservation or new supplies are required to balance the basin and stop seawater intrusion. The basin overdraft condition is leading to conflicts in groundwater rights (Revised BMP, 2002, Page 2-26), most notably between agricultural and urban groundwater users. If the basin is not balanced, seawater intrusion will continue to jeopardize the beneficial use of the groundwater basin, potentially exacerbating the groundwater rights conflicts.

Additionally, there have been conflicts between coastal groundwater users and inland water users in the Pajaro Valley. Groundwater users in the Pajaro Valley share a single, integrated groundwater basin. However, the impacts of the overdrafted groundwater basin are most significantly experienced by the coastal groundwater users, who are experiencing seawater intrusion and its effect on groundwater quality, as shown in the figure below. This imbalance between equal groundwater rights and unequal impacts of groundwater use has led to conflicts in the Pajaro Valley amongst groundwater users.



This imbalance between equal groundwater rights and unequal impacts of groundwater use has led to conflicts in the Pajaro Valley amongst groundwater users.

In 2009, PVWMA in partnership with the City of Watsonville, constructed and began operation of the Watsonville Area Water Recycling Facility (WRF). Recycled water from the facility provides the Coastal agricultural area with a local, reliable, safe and drought proof irrigation supply. The new supply for the Coastal growers allows those growers most at risk of seawater intrusion to use a supplemental supply and stop groundwater pumping. This strategy of delivering a supply to the Coastal area to off-set groundwater pumping has the most significant impact on stopping seawater intrusion. The Increased Recycled Water Storage Project will enhance the supply that is available for delivery to the Coastal growers.

This joint project is an excellent example of maximizing urban water recycling opportunities for agricultural benefits. Providing recycled water to agricultural water users helps solve a shared regional groundwater management and water supply problem and helps alleviate some of the conflict between agricultural and urban interests.

The projects will also reduce some of the conflict amongst coastal and inland water users. Although all groundwater users pump from the same groundwater basin, some view the seawater intrusion problem as a coastal water user responsibility. The PVWMA held many public meetings where the magnitude of the problem was described, the proposed solution was defined, and the strategy for financing the project was approved. The financing strategy was developed in a way that reduces the conflict between coastal and inland water users. Water users agreed that the costs to develop the new supply would benefit the entire groundwater basin and should therefore be paid for through basin wide groundwater pumping charges. It was also agreed that the CDS users would be responsible for the cost of the distribution system through delivered water charges. The development of the project's financing strategy that assigned rates based on benefits received helped alleviate the conflict between coastal and inland groundwater users.

4. *Contribute to attainment of one or more of the objectives of the CALFED Bay-Delta Program*

CALFED's Water Supply Reliability Program is achieved through five program elements: Conveyance, Storage, Environmental Water Account, Water Use Efficiency and Water Transfers. Together, they comprise CALFED's Water Supply Reliability Program objective. Through partnerships with local and regional agencies, these programs seek to increase water supplies, ensure efficient use of water resources and add flexibility to California's water system. The Hollister Urban Area Water Project contributes to the attainment of this CALFED Bay-Delta Program objective with certainty by the implementation of water use efficiency and water transfer components of the projects. The breadth and magnitude to which the program preference is met is discussed below.

The overall HUA Water Project concept is to reduce the potable water quality TDS and hardness by increasing the blend ratio of treated CVP water to groundwater, thereby reducing the TDS and hardness in the wastewater, satisfy WDRs, reducing or eliminating the need for water softeners, and increasing the beneficial use opportunities of the recycled water. The potable water supply in the HUA is provided by a combination of local groundwater and imported surface water from the CVP. Historically, TDS concentrations in groundwater range from 800 to 1,200 milligrams per liter (mg/L) while imported CVP surface water has TDS concentrations ranging from 250 to 300 mg/L. Historically, total hardness concentrations in the groundwater range from 340 to 480 mg/L as calcium carbonate (CaCO₃) and CVP sources have a hardness concentration of approximately 110 mg/L as CaCO₃.

The current HUA water supply is composed of three quarters municipal groundwater (3.7 mgd) and one quarter treated surface water from the existing Lessalt WTP (1.7 mgd). This blend of water results in an average hardness of approximately 340 mg/L and an average TDS of approximately 670 mg/L. The HUA Water Project will provide more treated surface water, approximately 4.25 mgd average annual production, which will reduce the level of TDS by approximately 27 percent and the level of hardness by approximately 27 percent in the potable water supply.

The ability to blend additional CVP water with groundwater has been limited by the treatment capacity of CVP raw water, not the CVP contracted assignment. SBCWD has a contract with the United States Bureau of Reclamation (USBR), Contract No. 8-07-20-W0130, for up to 8,250 acre-feet per year (AFY) of Municipal and Industrial (M&I) Central Valley Project (CVP) supply, SBCWD has not been able to use its full entitlement because the demand for raw M&I water combined with the capacity of the Lessalt WTP has not been sufficient to use the full amount. Due to the USBR's Shortage Policy, during times of shortage, the annual allocation of supply is based on actual historic use. Thus, by increasing the average use in normal and wet years, the quantity of water available in shortage years will also be increased, and therefore, the overall supply for the HUA will be more reliable. Similarly, increasing the use of surface water provides better conjunctive use and balance of the water supplies. More surface water can be used in wet and normal years, such that groundwater pumping can be reduced and reserved for dry years when less surface water is available.

Raw CVP water is supplied to the Lessalt WTP from the Hollister Conduit of the CVP, which conveys water from both the San Luis and San Justo Reservoirs. Since the plant was placed in service in 2002, it has been operated at a reduced capacity due to hydraulic constraints and the inability to treat iron and manganese from water supplied by San Justo Reservoir. Additionally, the WTP does not comply with the Stage 2 DBP Rule. Therefore, upgrades to the Lessalt WTP are required to meet the Stage 2 DBP Rule, to treat iron and manganese, and improve system hydraulics. Without the proposed upgrades, the Lessalt WTP cannot remain in operation, jeopardizing the region's ability to improve blend potable water quality.

In addition to the Lessalt WTP upgrade, a new surface water treatment plant is required to provide the required treatment capacity needed to fully utilize the CVP supplies and reduce the potable water TDS and hardness levels. The new West Hills Treatment Plant, a new raw water pump station and pipeline, and a new treated water transmission pipeline will satisfy the additional treatment capacity needed.


The overall purpose of the HUA Water Project is to:

- Provide a reliable and sustainable water supply to meet the current and future demands of the HUA.
- Improve the quality of municipal drinking water, industrial supply, and recycled water for urban and agricultural irrigation users.
- Achieve the goals of the City of Hollister (COH) Long-Term Wastewater Management Plan and the Sunnyslope County Water District (SSCWD) Long-Term Wastewater Management Plan.

5. Address critical water supply or water quality needs of disadvantaged communities within the region

The Pajaro Sunny Mesa Community Services District (PSMCSD) serves the community of Pajaro within the Pajaro River Watershed IRWM region. The Pajaro community has been identified as a Disadvantaged Community (DAC) as defined in the IRWM Grant Program Guidelines and it is included in DWR’s online DAC mapping tool.

PSMCSD currently serves a total of 453 connections in the Pajaro community. The Pajaro system consists of a single 1,500 gallon per minute (gpm) well, one above-ground 600,000 gallon welded steel storage tank, and a booster pump system utilizing hydropneumatic tanks. This design severely limits the operational flexibility of the system. If the existing tank is taken out of service for repairs or in case of an emergency, there is no back-up storage for the system. Also, the existing tank is over 30 years old and in need of maintenance. The exterior and interior is corroding with as much as 33% corrosion on the hatch and vent. The recommendation called for blasting and recoating the tank. In order to make these repairs, the existing storage tank would need to be out of service for 6-12 weeks, which is currently untenable because this is the only tank serving the community.

Access Hatch Condition	
Coating Condition: Poor	
Corrosion Present: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Seams/Welds Condition: Good	
Oxidation Present? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
De-lamination Present? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Hatch Size: 2 foot square	
Hatch Locked? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Hinge Condition: Good	
Gasket Present? Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
Intact? Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Insects, Dirt Or Debris Present Under Hatch? Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
Summary: The hatch was found locked with no gasket present and in poor condition with biological growth, de-alloying, heavy oxidation, de-lamination and 33% surface corrosion noted. Recommend a gasket.	
	

The California Department of Public Health (CDPH) and California Water Code require a public water system with fewer than 1,000 connections to have storage capacity equal to or greater than the system’s maximum day demand (MDD), unless the system can demonstrate that it has an additional source of supply or has an emergency source connection that can meet the MDD requirement (CCR Title 22, Chapter 16, Article 2, Section 64554). Based on the requirements in the water code for calculating MDD, the MDD for the Pajaro community is just over 540,000 gallons. CDPH and the water code also require that new community water systems using only groundwater have a minimum of two approved sources capable of meeting MDD with the highest-capacity source off line before being granted an initial permit. These requirements do not strictly apply to the Pajaro community because this is not an application for a new permit; nonetheless, the need is demonstrated for additional storage to offset the limitations imposed by having only a single groundwater supply source.

In addition to the CDPH and water code storage requirements, California Fire Code requires the Pajaro community to have a minimum fire flow storage volume able to supply 1,500 gpm continuously for 2 hours, or 180,000 gallons in total (2010 California Fire Code, Appendix B, page 584).

These two storage requirements must both be met at all times in order for the system to function without failure during emergencies. This means that the minimum volume of storage that should be maintained at all times for the Pajaro community system is 720,000 gallons. PSMCSD currently only has the capacity to store 600,000 gallons, as noted above. Therefore, PSMCSD needs to increase the storage capacity for the Pajaro community water system. The CDPH conducted an inspection of the system in 2010 and the recommendation resulting from that inspection was:

It is recommended by the Department that water district should develop a Capital Improvements Plan/Equipment Replacement Plan. The Pajaro Community Service District should develop a budget that includes reserves for emergencies (e.g., emergency reserve funds for unplanned equipment repair or replacement), and reserves for Capital Improvement Projects.

The proposed project would provide for the construction of a second 600,000-gallon welded steel tank so that the existing tank can be rehabilitated later. The existing tank would be rehabilitated after construction of the new tank was completed; rehabilitation of the existing tank is not included as a part of this project.

6. *Effectively integrate water management with land use planning*

All of the projects included in the Pajaro River Watershed IRWM Implementation Proposal considered and integrated land use planning into the project development. However, the Hollister Urban Area (HUA) Water Project best demonstrates the effective integration of water management with land use planning.

Since 2002, wastewater treatment and disposal have become a constraint to development of the HUA due to a sewer growth moratorium. Treated wastewater effluent typically has TDS concentrations of approximately 1,200 mg/L at the City Wastewater Treatment Plant and up to 1,800 mg/L at the wastewater treatment plant serving the Ridgemark area of the SSCWD.

The SSCWD's Ridgemark Wastewater Treatment Plant (WWTP) serves the Ridgemark development within SSCWD's service area. The WWTP must meet its WDRs, defined in WDR Order No. R3-2004-0065, which requires a reduction in salt constituents. Specifically, the TDS concentration limit is 1,200 mg/L on a 30-day average.

Similarly, the City's Water Reclamation Facility (WRF) serves the City's wastewater collection system. The WRF must meet its requirements defined in Order No. 2008-0069, which requires a reduction in salt constituents. Specifically, the TDS concentration limit is 1,200 mg/L on a rolling 12-month basis.

The relatively high mineral content in effluent from both the WWTP and the WRF limits both disposal and recycling options due to adverse impacts to groundwater and crops.

In addition to the wastewater discharge issues, there are also water supply issues in the HUA. Current potable demands in the Hollister Urban Area (HUA) are 5,856 AFY and are projected to increase to 10,371 AFY in the year 2025 (2010 UWMP, Table 3-12). Potable water supplies currently include municipal groundwater and imported surface water from the CVP. The imported CVP water is treated at the existing Lessalt WTP. On average, groundwater accounts for approximately 75 percent and the CVP water accounts for approximately 25 percent of the potable supplies (UWMP, Table 4-7).

The General Plans adopted by the City and San Benito County anticipate continued significant growth until 2023. Based on data from the California Department of Finance, the County population is projected to increase from 57,490 in 2005 to 76,901 in 2023. Projected potable demand associated with this growth is 4,515 AFY (UWMP, Table 3-12).

Current and projected HUA demands can be met by the existing supplies in normal (non-drought) conditions. However, in critically dry years, municipal supplies may be reduced to approximately 60 percent of contract entitlements and in multiple dry year conditions, up to 50 percent (Hollister Urban Area Water and Wastewater Master Plan (Master Plan, Page 1-7). Based on current trends, it is likely that the reliability of imported CVP supplies will continue to decline in the future. Therefore, a long-term plan is required for a reliable water supply to meet the projected growth defined by the City of Hollister and San Benito County General Plans.

Therefore, due to wastewater discharge requirements, water quality needs, and water supply demands, a more effective balance in the use of water resources was required in the HUA. The 2008 HUA Water and Wastewater Master Plan was developed, in consideration of the UWMP, WDRs, and City and County General Plans, to guide an integrated approach to optimize water supply, wastewater management, and water recycling. The HUA Water Project was a recommendation developed in the Master Plan to meet the needs described above and accomplish the following goals:

- Provide a reliable and sustainable water supply to meet the current and future demands of the HUA.
- Improve the quality of municipal drinking water, industrial supply, and recycled water for urban and agricultural irrigation users.
- Achieve the goals of the City of Hollister (COH) Long-Term Wastewater Management Plan and the Sunnyslope County Water District (SSCWD) Long-Term Wastewater Management Plan.

7. Address Statewide priorities – Drought Preparedness

In accordance with the Proposition 84 guidelines, the Pajaro River Watershed IRWM Implementation Proposal achieves the following Drought Preparedness criteria:

Criteria	HUA Water Project	Increased Recycled Water Storage	Pajaro Water Quality & Aquifer Enhancement
Water Conservation			✓
Conjunctive Use	✓	✓	
Reuse and Recycling	✓	✓	
Irrigation Efficiency			✓
Reduction in Use			✓
Groundwater Management	✓	✓	✓

HUA Water Project

- Expands the surface water treatment capacity to improve the conjunctive management of the groundwater basin and surface supplies.
- Improves water quality to allow for the beneficial use of recycled water.
- Optimizes the use of surface supplies to preserve the groundwater basin for dry and critically dry years.

Increased Recycled Water Storage Project

- Increases the capacity for recycled water use, which is blended with groundwater for agricultural irrigation (conjunctive use)
- Increased recycled water off-sets groundwater pumping from the overdrafted groundwater basin.

Pajaro Agricultural Water Quality and Aquifer Enhancement Project

- Regional Mobile Lab will provide education and technical assistance to enhance irrigation and water management practices, improve system efficiency and reduce water use, runoff and nutrient loading.
- Managed aquifer recharge component is part of a systematic process of intentionally capturing stormwater that will be used to replenish depleted aquifers in the Lower Pajaro for later extraction and use.

8. Address Statewide priorities – Use and Reuse Water More Efficiently

In accordance with the Proposition 84 guidelines, the Pajaro River Watershed IRWM Implementation Proposal achieves the following Water Use and Reuse Drought criteria:

Criteria	HUA Water Project	Increased Recycled Water Storage	Pajaro Water Quality & Aquifer Enhancement
Conservation			✓
Recycling	✓	✓	
Stormwater Management			✓
Delta Reliability	✓		

HUA Water Project

- Expands the surface water treatment capacity to improve the use of the existing CVP allocation.
- Improves water quality to allow for the beneficial use of recycled water.

Increased Recycled Water Storage Project

- Increases the capacity for expanded recycled water use.

Pajaro Agricultural Water Quality and Aquifer Enhancement Project

- Regional Mobile Lab will provide education and technical assistance to enhance irrigation and water management practices, improve system efficiency and reduce water use, runoff and nutrient loading.
- Managed aquifer recharge component is part of a systematic process of intentionally capturing stormwater that will be used to replenish depleted aquifers in the Lower Pajaro for later extraction and use.

9. Address Statewide priorities – Protect Surface Water and Groundwater Quality

In accordance with the Proposition 84 guidelines, the Pajaro River Watershed IRWM Implementation Proposal achieves the following Surface Water and Groundwater Protection criteria:

Criteria	HUA Water Project	Increased Recycled Water Storage	Pajaro Water Quality & Aquifer Enhancement
Surface Water Quality			✓
Groundwater Quality	✓	✓	✓
Salt and Nutrient Management	✓	✓	✓

HUA Water Project

- Expands the surface water treatment capacity to improve the use of the existing CVP allocation and preserve the groundwater basin for dry and critically dry years.
- Reduces the salt levels in the wastewater effluent and recycled water, protecting the groundwater basin and increasing the beneficial use of the recycled water.
- Project need and benefits being considered in Salt and Nutrient Management Plan.

Increased Recycled Water Storage Project

- Increases the capacity for expanded recycled water use, off-setting groundwater pumping and protecting the basin from seawater intrusion.
- Groundwater modeling and salt and nutrient management planning document the groundwater benefits of the project.

Pajaro Agricultural Water Quality and Aquifer Enhancement Project

- Cost-share and performance-based incentives provided to implement Best Management Practices (BMPs) on agricultural lands to reduce pollutant movement into surface water and groundwater.
- Regional Mobile Lab will include an educational and technical assistance program to enhance irrigation and water management to reduce water use, runoff and nutrient loading.

10. Address Statewide priorities – Ensure Equitable Distribution of Benefits

In accordance with the Proposition 84 guidelines, the Pajaro River Watershed IRWM Implementation Proposal ensures the equitable distribution of benefits to the Disadvantaged Community (DAC) of Pajaro through the following activities in support of the DAC project included in this proposal (Critical Water Supply System Improvements for Pajaro):

- Increased the participation of the Pajaro Sunny Mesa Community Services District (PSMCSD), a DAC, in the IRWM process through directed funding. The funding was used to support the PSMCSD participation in the plan update process and, most importantly, to conduct a needs assessment for PSMCSD.
- Directed funding was also used to develop the project description and necessary grant application materials for the highest priority, critical water supply project for the DAC (Critical Water Supply System Improvements for Pajaro).
- Requested 100% grant funding for the DAC project included in this proposal to ensure, if the grant is awarded, the critical water supply project is implemented and limited due to financial limitations.

PSMCSD currently serves a total of 453 connections in the Pajaro community. The Pajaro system consists of a single 1,500 gallon per minute (gpm) well, one above-ground 600,000 gallon welded steel storage tank, and a booster pump system utilizing hydropneumatic tanks. This design severely limits the operational flexibility of the system. If the existing tank is taken out of service for repairs or in case of an emergency, there is no back-up storage for the system. Also, the existing tank is over 30 years old and in need of maintenance, as noted in the inspection report dated February 2, 2013. The exterior and interior is corroding with as much as 33% corrosion on the hatch and vent. The inspection recommendation called for blasting and recoating the tank. In order to make these repairs, the existing storage tank would need to be out of service for 6-12 weeks, which is currently untenable because this is the only tank serving the community.

The California Department of Public Health (CDPH) and California Water Code require a public water system with fewer than 1,000 connections to have storage capacity equal to or greater than the system's maximum day demand (MDD), unless the system can demonstrate that it has an additional source of supply or has an emergency source connection that can meet the MDD requirement (CCR Title 22, Chapter 16, Article 2, Section 64554). Based on the requirements in the water code for calculating MDD, the MDD for the Pajaro community is just over 540,000 gallons. CDPH and the water code also require that new community water systems using only groundwater have a minimum of two approved sources capable of meeting MDD with the highest-capacity source off line before being granted an initial permit. These requirements do not strictly apply to the Pajaro community because this is not an application for a new permit; nonetheless, the need is demonstrated for additional storage to offset the limitations imposed by having only a single groundwater supply source.

In addition to the CDPH and water code storage requirements, California Fire Code requires the Pajaro community to have a minimum fire flow storage volume able to supply 1,500 gpm continuously for 2 hours, or 180,000 gallons in total (2010 California Fire Code, Appendix B, page 584).

These two storage requirements must both be met at all times in order for the system to function without failure during emergencies. This means that the minimum volume of storage that should be maintained at all times for the Pajaro community system is 720,000 gallons. PSMCSD currently only has the capacity to store 600,000 gallons, as noted above. Therefore, PSMCSD needs to increase the storage capacity for the Pajaro community water system and the Critical Water Supply System Improvements for Pajaro Project included in this proposal meets those needs.